STANDARD
OIL COMPANY
(INDIANA)



**Annual Report** 

1999

# Standard Oil Company (Indiana) Annual Report



The Year in Brief		1968	1967
Financial	Total revenues	\$3,993,662,000	3,586,633,000
	Net earnings	\$ 309,494,000	280,865,000
	Net earnings per share	\$ 4.37	3.97
	Dividends paid	\$ 148,938,000	134,619,000
	Dividends paid per share	\$ 2.10	1.90
	Capital and exploration expenditures	\$ 796,943,000	638,745,000
	Total assets	\$4,737,454,000	4,187,527,000
	Book value per share	\$ 43.39	41.24
	Working capital	\$ 668,109,000	633,988,000
Operating	Crude oil and natural gas liquids, barrels per day —		
Oper domig	Net production	608,053	548,035
	Refinery input	925,168	861,883
	Natural gas sold, thousand cubic feet per day	2,727,197	2,622,439
	Refined products sold, barrels per day	977,273	902,096

If you would like to receive the financial and statistical supplement to the 1968 Annual Report, please send your request to the Secretary, Standard Oil Company (Indiana), P.O. Box 5910-A, Chicago, Illinois 60680.

**To Our Shareholders:** In 1968, our Company again met its major objectives. These include continued growth in earnings, improvement in the rate of return on shareholders' investment, and expansion of our operations to provide a basis for long-term profit growth.

Consolidated net earnings for the year totaled \$309.5 million, or 10.2 per cent above the \$280.9 million earned in 1967. Earnings per share advanced to \$4.37 from \$3.97 in 1967. Dividends were also increased, to \$2.10 per share compared with the \$1.90 paid in 1967. The year marked our tenth consecutive annual increase in both earnings and dividends.

In January, 1969, the quarterly dividend rate was further increased, from  $52\frac{1}{2}$  cents to  $57\frac{1}{2}$  cents a share.

Revenues for 1968 totaled \$3,994 million, an increase of 11.3 per cent over 1967. Costs and expenses rose by 11.4 per cent, to \$3,684 million.

One of the goals announced several years ago was to bring the rate of return on our shareholders' ownership up to 10 per cent as rapidly as we could. This objective was attained in



John E. Swearingen

1968, with our rate of return reaching 10.3 per cent. Our goal now is to bring about further improvement.

We have been carrying out a major investment program in all phases of our business. In 1968, capital and exploration expenditures totaled a record \$797 million, of which approximately 84 per cent was invested in the United States and Canada.

In November of 1968, we announced plans for a proposed merger with Cerro Corporation, a primary producer of non-ferrous metals and a manufacturer of copper and copper alloy products. Further action on the proposal was later deferred, to permit time for additional evaluation.

New records were set in all principal operations. Net production of crude oil and natural gas liquids increased 10.9 per cent, while refinery runs increased 7.3 per cent. Sales of refined products in 1968 rose 8.4 per cent in volume, and sales revenues gained 9.2 per cent.

Natural gas sales increased 4.0 per cent to an average 2.7 billion cubic feet per day. Chemical and fertilizer sales totaled \$352 million, 51.6 per cent higher than in the previous year.

The sharp growth in chemical sales was due in part to the acquisitions of Avisun Corporation and Patchogue-



Robert C. Gunness

Plymouth Company early in 1968. Also, new sales levels were reached in all major product lines, from sulfur to fabricated plastics. New manufacturing capacity enabled a 66 per cent increase in sales of the raw materials used in making polyester fibers, which are among our principal chemical products.

Overseas operations in 1968 became a contributor to profits, although still in a relatively modest way. Overseas crude production rose significantly.

Gross production from the fields we have discovered in Iran and Egypt averaged 240,000 barrels a day while our net share reached 110,000 barrels a day — a gain of over 65 per cent from the 1967 level. Although not currently included in our consolidated results, production in Argentina also increased, averaging 34,700 barrels a day versus 28,700 barrels a day in 1967. In the North Sea, facilities for delivering natural gas from the large reserves discovered in British waters are in the final stages of completion. Gas was also tested in several exploratory wells offshore Trinidad.

Meanwhile, our exploratory interests were extended into

a number of new territories, including the Canadian Arctic, the Dutch portion of the North Sea, Mauritania, and Thailand. Among the areas in which we currently have wildcats drilling are the North Slope of Alaska, the Bristol Bay Basin of Alaska, and Mauritania.

Refined product prices held generally firm in 1968, at a level slightly higher than a year ago. However, cost inflation continued at an alarming rate. In line with the pattern extending generally throughout the petroleum industry, we have recently negotiated a number of two-year union contracts providing for general wage increases of 6 per cent in the first year and 4½ per cent in the second, and for substantial additions to the Company's cost of employee benefit plans. While competition in our industry keeps a tight rein on prices, we have passed the point where larger volumes and improvements in operating efficiency can offset the cost increases, and an upward adjustment in gasoline prices took place in February, 1969. At the same time, we are giving high priority to a major cost-control program to reduce expenses in all operations.

How our Company fares in 1969 will depend to a considerable extent on how the domestic economy performs. Urban challenges remain to be met, and no clear relief from inflation is yet in sight. Abroad, we still face uncertainties in Vietnam and the Middle East. The balance of payments problem has not been solved, and we are forced to operate under governmental controls on foreign investment which will be self-defeating if continued for very long.

Nonetheless, we have confidence in the capacity of our Company and its people to meet the demands that will be placed upon them, and look forward to further progress toward our objectives in 1969.

We gratefully acknowledge the support of all who helped make 1968 a record year.

John E. Swearingen Chairman

> obert C. Gunness President

March 1, 1969

#### Financial Review

# 1968

Our net earnings for 1968 were a record \$309,494,000, marking the tenth annual consecutive increase. The total was 10.2 per cent higher than our 1967 earnings of \$280,865,000. Per share earnings in 1968 were \$4.37 on 70,843,054 average shares outstanding. This compares with \$3.97 per share in 1967 on 70,830,073 average shares outstanding.

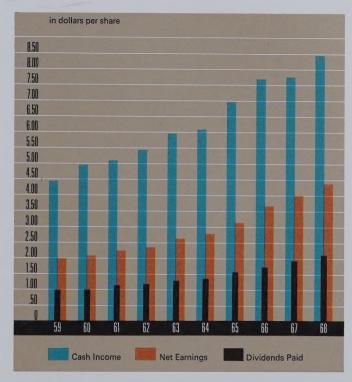
Four quarterly dividends of 52½ cents per share were paid in 1968. The total was \$2.10 per share, compared with \$1.90 per share in 1967. Dividend payments have increased annually for 10 consecutive years. Total dividends paid in 1968 amounted to \$148,938,000, an increase of \$14,319,000 over total 1967 dividends of \$134.619,000.

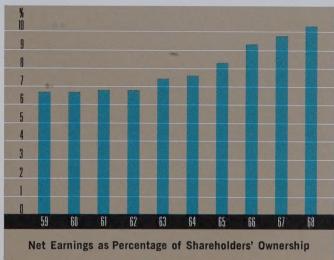
**Revenues, Costs, Expenses, and Taxes.** Record revenues of \$3,993,662,000 in 1968 were 11.3 per cent higher than 1967 revenues. This increase resulted primarily from the continued expansion of over-all Company operations and relatively stable prices associated with substantial increases in sales volumes.

Costs, expenses, and taxes increased 11.4 per cent to \$3,684,168,000 in 1968. The increase resulted from the higher level of operations and rises in employment costs, prices for purchased materials, and taxes.

In 1968, Standard revised its accounting policy, retroactively, to amortize nonproducing leases in North America, the cumulative prior years' effect of which was treated as a prior period adjustment. Amortization of nonproducing leases in foreign areas has been accumulated as part of the provisions for losses on foreign investments which are included in the reserve for depreciation, depletion, and amortization.

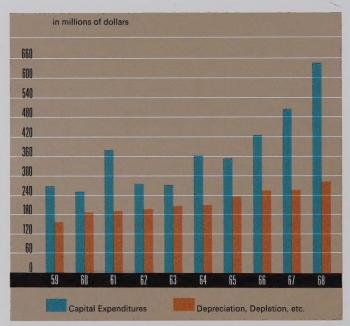
Taxes totaled \$901 million in 1968, up 11.7 per cent. Excise taxes collected on the sale of products to customers were \$704 million. Federal and other taxes on income totaled \$93 million in 1968, which included \$8 million applicable to the 10 per cent tax surcharge which became effective January 1, 1968. Total taxes equaled \$12.72 per share, more than six times the dividends paid.

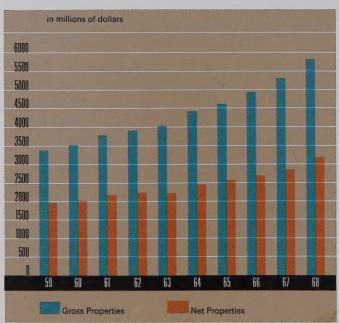




#### **Financial Review**

# 1968





Capital and Exploration Expenditures. Capital and exploration expenditures reached a new high of \$797 million, compared with \$639 million in 1967. Approximately 54 per cent of these expenditures went to exploration and production activities. Capital expenditures amounted to \$648 million, and exploration expenditures charged to current income totaled \$149 million.

Working Capital. The Company's working capital increased \$34 million to total \$668 million at the end of 1968. Current assets, which do not include investments in listed securities with a market value of \$116 million, were 2.05 times current liabilities.

Cash and marketable securities included in current assets were \$239 million at year end, down \$16 million. Notes and accounts receivable increased to \$660 million in 1968, up \$79 million as a result of increased sales volumes and expanded services to our credit card holders. Crude oil and products inventories rose \$20 million to \$301 million. These inventories are stated at cost, mainly on the last-in, first-out method (LIFO), which is substantially below replacement cost. Inventories of materials and supplies, stated at average cost or less, totaled \$52 million.

**Indebtedness.** Long-term debt at year end amounted to \$841 million, which includes current installments of \$23 million due in 1969. Total debt was equal to about 18 per cent of total assets.

In January, 1968, we sold \$200 million of debentures to help meet the financial needs of continued expansion.

Also, in cooperation with the program of the United States Government to improve our country's balance of payments, we issued \$25 million of Euro-dollar debentures in Europe to help finance overseas growth.

Debentures totaling \$32 million that we have reacquired to meet future sinking fund payments are not included as outstanding debt. These debentures consist mainly of Thirty-Year 3.20 per cent Sinking Fund Debentures of Service Pipe Line Company.

# Financial Statements Standard Oil Company (Indiana) and Subsidiaries

For the Years 1968 and 1967.

Consolidated Statement of Earnings	1968	1967
Revenues		
ales and other operating revenues (including excise taxes)	\$3,918,052,000	\$3,536,288,000
Dividends, interest, and other income	75,610,000	50,345,000
Total revenues	3,993,662,000	3,586,633,000
Costs, Expenses, and Taxes		
Purchased crude oil, petroleum products, merchandise, and operating expenses	1,778,615,000	1,591,039,000
Exploration expenses, including dry hole costs	148,896,000	135,437,000
elling and administrative expenses	528,168,000	480,609,000
axes	901,163,000	806,459,000
Depreciation, depletion, amortization, retirements, and abandonments	279,541,000	257,173,000
nterest expense	44,643,000	29,072,000
ncome applicable to minority interest	3,142,000	5,979,000
Total costs, expenses, and taxes		3,305,768,000
let Earnings		\$ 280,865,000
let Earnings Per Share	\$4.37	\$3.97

# Consolidated Statement of Shareholders' Ownership

	Par Value of Capital Stock	Capital in Excess of Par Value	Earnings Retained and Invested in the Business	Treasury Shares at Cost	Total
Balance at December 31, 1967  As previously reported	\$913,418,000	\$72,443,000	\$2,056,180,000 (39,127,000)	\$(79,028,000)	\$2,963,013,000 (39,127,000)
As restated	913,418,000	72,443,000	2,017,053,000	(79,028,000)	2,923,886,000
Net earnings			309,494,000		309,494,000
Cash dividends at \$2.10 a share			(148,938,000)		(148,938,000)
Adjustment arising from acquisition of a pooled company		669,000	(5,531,000)	7,295,000	2,433,000
treasury shares (net)		the Course to be I want to		(12,687,000)	(12,687,000)
Balance at December 31, 1968	\$913,418,000	\$73,112,000	\$2,172,078,000	\$(84,420,000)	\$3,074,188,000

# Consolidated Balance Sheet Standard Oil Company (Indiana) and Subsidiaries

December 31, 1968 and 1967.

Assets		1968	1967
Current	Cash	\$ 112,842,000	\$ 113,382,000
Assets	U.S. Government and other marketable securities — at cost, which approximates market	125,765,000	140,787,000
	Accounts and notes receivable (less reserves of \$18,017,000 at December 31, 1968 and \$16,163,000 at December 31, 1967)	660,400,000	581,548,000
	Inventories —		
	Crude oil and products — at cost (mainly LIFO), below market.	300,746,000	280,290,000
	Materials and supplies — at or below cost	51,565,000	48,462,000
	Prepaid expenses and income taxes	51,796,000	14,358,000
		1,303,114,000	1,178,827,000
Investments and Sundry Assets	Listed securities — at cost	14,860,000	14,860,000
	Investments held for operating purposes — at cost	90,286,000	78,621,000
	Long-term receivables and sundry assets	153,512,000	73,844,000
		258,658,000	167,325,000
Properties	— at cost, less depreciation, depletion, and amortization reserves of \$2,678,650,000 at December 31, 1968		
	and \$2,496,897,000 at December 31, 1967	3,175,682,000	2,841,375,000
		\$4,737,454,000	\$4,187,527,000

Liabilities a	and Shareholders' Ownership	1968	1967
Liabilities Payable Within One Year	Current installments of long-term debt	\$ 22,530,000 490,884,000 121,591,000 635,005,000	\$ 16,751,000 419,051,000 109,037,000 544,839,000
Long-Term Debt Deferred		818,158,000	511,797,000
Income Taxes Minority Interest in Subsidiary Companies		173,580,000 36,523,000	170,523,000 36,482,000
Shareholders' Ownership	Capital stock Capital in excess of par value Earnings retained and invested in the business  Less — Capital stock held in treasury — at cost Total shareholders' ownership.	913,418,000 73,112,000 2,172,078,000 3,158,608,000 84,420,000	913,418,000 72,443,000 2,017,053,000 3,002,914,000 79,028,000 2,923,886,000
		\$4,737,454,000	\$4,187,527,000

The statements of Investment in Properties and Long-Term Debt on page 7 and the Notes on pages 8 and 9 are an integral part of these statements.

Source	and Application of Funds	1968	1967
Source	Net earnings	\$309,494,000	\$280,865,000
of Funds	Depreciation, depletion, amortization, retirements, and abandonments	279,541,000	257,173,000
	Deferred income taxes	7,689,000	8,146,000
		596,724,000	546,184,000
	New borrowings	332,227,000	19,061,000
	Decrease in working capital	_	67,910,000
	Miscellaneous	29,607,000	44,869,000
	Total	\$958,558,000	\$678,024,000
Application	Capital expenditures	\$648,047,000	\$503,308,000
of Funds	Dividends paid	148,938,000	134,619,000
	Increase in working capital	34,121,000	
	Increase in long-term receivables and sundry assets	79,668,000	2,714,000
	Repayments on borrowings	25,866,000	13,561,000
	Miscellaneous	21,918,000	23,822,000
	Total	\$958,558,000	\$678,024,000

Long-Term Debt	1968	1967
Standard Oil Company (Indiana) —		
6% Debentures due 1979 to 1998	\$200,000,000	\$ —
6% Debentures due 1971 to 1991	175,000,000	175,000,000
4½ % Debentures due 1970 to 1983	159,262,000	166,897,000
3% Debentures due 1970 to 1979	20,114,000	21,800,000
2.90% to 3½% Promissory Notes due 1970 to 1979	52,646,000	57,847,000
Amoco Chemicals Corporation 4.571% to 6% Promissory Notes due 1970 to 1981	87,498,000	_
Service Pipe Line Company 3.20% Debentures due 1982, exclusive of \$23,977,000 principal amount repurchased as of December 31, 1968	25,223,000	25,321,000
Amoco International Finance Corporation 5½ % and 6¾ % Guaranteed Bonds due 1970 to 1983	35,516,000	11,516,000
Amoco Oil Holdings S.A. 534 % Guaranteed Bonds due 1970 to 1985	23,530,000	25,000,000
Other indebtedness	39,369,000	28,416,000
	\$818,158,000	\$511,797,000

Investment in Properties Dollars)	Capit Expenditure			Investment ember 31, 1968	Investment December 31, 1967		
	Amount	%	Gross	Net	%	Net	%
Production	\$285,045	44%	\$3,032,447	\$1,556,958	49%	\$1,436,337	51%
Manufacturing	53,276	8	969,483	419,060	13	413,184	14
Chemicals	145,291	23	415,744	339,647	11	224,807	8
Transportation	40,019	6	579,892	246,372	8	221,531	8
Marketing	102,215	16	771,872	563,923	18	511,457	18
Other	22,201	3	84,894	49,722	1	34,059	1
Total	\$648,047	100%	\$5,854,332	\$3,175,682	100%	\$2,841,375	100%

#### Notes to Financial Statements

# 1968

Principles of Accounting and Consolidation. The accounts of all domestic and foreign subsidiaries in which Standard Oil Company (Indiana) directly or indirectly owns more than 50 per cent of the voting stock are included in the consolidated financial statements, with two exceptions. They are Imperial Casualty and Indemnity Company, which, effective January 1, 1968, is accounted for on an equity basis, and Pan American Argentina Oil Company, which is accounted for on a cost basis. The difference between dividends received and the Company's equity in Pan American Argentina's 1968 earnings was not significant. Foreign currency items have been translated to U.S. dollars at appropriate rates of exchange.

Consolidated net assets related to operations in North America amount to \$2,645,705,000 and to operations outside North America, \$428,483,000. Consolidated 1968 net earnings include \$281,927,000 attributable to operations in North America and \$27,567,000 attributable to operations outside North America.

Effective January 1, 1968, the practice of amortizing the costs of nonproducing leases in North America was adopted on a retroactive basis. That portion of costs estimated to be applicable to properties which will not become productive is amortized over projected holding periods. The previous practice was to charge the costs to expense when leases were surrendered. This change, together with the change to equity accounting for Imperial, had no material effect on 1968 earnings. The 1967 financial statements have been restated to reflect these changes and, accordingly, net earnings for that year have been reduced by \$1,385,000 and earnings retained and invested in the business at January 1, 1967, have been decreased by \$37,742,000, of which lease amortization accounts for \$35,353,000, after applicable income taxes of \$39,547,000.

The business and net assets of Avisun Corporation and Patchogue-Plymouth Company were purchased in January, 1968, and the results of their operations from date of acquisition are included in the consolidated financial statements. The purchase resulted in approximately \$39,000,000 excess of cost over equity in net assets acquired. This amount is included in long-term receivables and sundry assets and is not being amortized since there is no indication of any impairment in value.

In accordance with Opinion No. 11 of the Accounting Principles Board of the American Institute of Certified Public Accountants, 1967 statements have also been restated, with no effect on net earnings, to reclassify as "taxes" deferred income tax amounts previously reported as additional depreciation.

**Depreciation, Depletion, and Amortization.** In general, depreciation of plant and equipment is computed on a straight-line basis over the estimated economic life of the facilities. Depletion of producing properties and amortization of intangible drilling and development costs applicable to productive wells are computed on the unit-of-production method, based

on estimated net recoverable oil and gas reserves. For income tax purposes, all intangible drilling and development costs are deducted when incurred.

**Capital Stock.** Of an authorized 100,000,000 shares of \$12.50 par value common stock, 73,073,483 shares have been issued. At December 31, 1968, 70,855,819 shares were outstanding, a decrease of 49,720 shares from the 70,905,539 shares outstanding at December 31, 1967. The decrease in shares outstanding resulted entirely from treasury stock transactions as summarized below:

	Number of Shares	Thousands of Dollars
Treasury shares at December 31, 1967	2,167,944	\$ 79,028
Purchased	960,776	51,952
Sales to trustee under employee savings plan	(641,822)	(34,544)
Sales to optionees under incentive stock option plans	(137,220)	(4,721)
Used in business acquisitions	(132,014)	(7,295)
Treasury shares at December 31, 1968	2,217,664	\$ 84,420

Incentive Compensation Plan. In May, 1967, shareholders approved an incentive compensation plan for key executives. Bonus awards are payable in cash, Company stock, or a combination thereof up to a maximum of 3 per cent of the amount by which earnings (as defined in the plan) exceed 7 per cent of capital employed (as defined in the plan) for any bonus year. A provision of \$2,661,000 was made against 1968 earnings and credited to a bonus reserve in anticipation of awards to be made in 1969. Awards of \$2,026,000 were granted to 194 employees in 1968.

Incentive Stock Option Plans. Under incentive stock option plans, dating back to May 7, 1953, key employees have been granted options to purchase shares of the Company's stock. The price of shares under options granted before May 2, 1963, is 95 per cent of the fair market value on the granting date, and the options normally extend for 10 years. The price of shares under options granted after May 2, 1963, is 100 per cent of the fair market value on the date of grant, and these options normally extend for five years. Shares provided when options are exercised may be taken from authorized but unissued stock or may be reacquired shares. No options may be granted under current plans after May 1, 1973.

On January 1, 1968, options for 639,975 shares were outstanding under the plans and 59,290 shares were available for future grants. On May 2, 1968, shareholders approved a plan making an additional 350,000 shares available. Options for 137,220 shares were exercised during the year at prices ranging from \$19.25 to \$45.375 per share. Options for 1,000 shares expired or were canceled. New options were granted for 18,800

shares at prices ranging from \$52.00 to \$66.375 per share. At the close of 1968, options for 520,555 shares were held by 265 executives; 391,490 shares were available for future grants.

Retirement Plan. The Company and its subsidiaries have retirement plans available to substantially all employees, providing benefits under trusteed plans and contracts with an insurance company. The actuarially calculated annual cost of the plans to the Company, amounting to \$13.3 million in 1968, was funded and charged against earnings.

Contingent Liabilities and Commitments. In 1963, the Federal Power Commission asserted jurisdiction over the price at which certain producing properties were sold in 1960 without its sanction. In June, 1965, the U.S. Supreme Court held that the sale was subject to FPC regulation. The matter is pending before the Federal Power Commission. It is anticipated that regulation of the sales price will not have a material effect on the Company's financial position.

On December 31, 1968, the Company had long-term leases extending beyond one year covering various service stations, tankers, office buildings, and other facilities, substantially all of which expire within 15 years. Annual rentals payable under these leases, without reduction for related rental income, are estimated at \$60,300,000.

The Company is contingently liable as guarantor on outstanding loans of others in the amount of \$65,200,000. Also, under long-term agreements with certain companies in which stock interests are held, the Company has guaranteed specified revenue.

nues from product shipments, and, under certain conditions, is obligated to provide funds to maintain working capital at specified minimums. No loss is anticipated from these obligations.

At year end, the Company had substantial commitments entered into in the normal course of business for the acquisition or construction of facilities.

**Taxes.** Taxes totaling \$901,163,000 for 1968 and \$806,459,000 for 1967, are shown on the Consolidated Statement of Earnings on page 5. The principal taxes, which include excise taxes on products sold, are shown in the table below. Federal and other taxes on income were reduced by an investment credit of \$18,637,000 in 1968 and \$11,652,000 in 1967.

(Thousands of Dollars)	1968	1967
Excise taxes	\$704,334	\$618,196
Property taxes	45,928	42,095
Production taxes	28,451	26,895
Federal and other taxes on income —		
Current	85,570	84,597
Deferred	7,689	8,146
Other taxes (social security taxes, corporation		
taxes, inspection fees, import duties, etc.)	29,191	26,530
Total taxes	\$901,163	\$806,459

# Report of Independent Accountants

Price Waterhouse & Co.

To the Board of Directors of Standard Oil Company (Indiana)

In our opinion, the accompanying consolidated balance sheet, the related statements of earnings and shareholders' ownership and the statement of source and application of funds present fairly the financial position of Standard Oil Company (Indiana) and its consolidated subsidiary companies at December 31, 1968, and the results of their operations and the supplementary information on funds for the year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year, after giving retroactive effect to the changes, which we approve, described in the notes to the financial statements. Our examination of these statements was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

Chicago, Illinois February 27, 1969

Price trater Louise VCo.

### Production

**Crude Oil.** Our net production of crude oil and natural gas liquids in North America rose 4.3 per cent, reaching an all-time high of 490,785 barrels daily. This included a record level of 43,815 barrels daily in Canada, an increase of 6.8 per cent.

With demand for domestic crude rising steadily, proration was again eased in four states. Regulated wells in Texas were permitted to produce at an average of 44.9 per cent of rated capacity, compared with 40.6 per cent the previous year and 33.8 per cent in 1966. In Louisiana, the market demand factor rose to 41.6 per cent from an average of 38.3 per cent a year earlier. Oklahoma and New Mexico also eased production restrictions.

**Natural Gas.** Production of natural gas continued to increase, averaging 2.8 billion cubic feet daily, up 3 per cent. Much of this growth stemmed from the start-up at midyear of deliveries of Louisiana gas to a Florida utility under a 20-year contract involving almost one trillion cubic feet of gas from onshore and offshore fields.

In addition, we signed 10 new contracts for South Louisiana gas during the year. Ultimate sales under these contracts are expected to be about 700 billion cubic feet. Deliveries under three of the new contracts started in 1968. The rest should start in 1969.

In West Texas, we contracted to sell more than 200 billion cubic feet of gas from two Delaware Basin fields, starting in 1969. As development drilling continued in Oklahoma, we signed two additional contracts with Oklahoma utilities to sell gas from 57,000 acres in the Anadarko and Arkoma basins. The Arkoma sales began at midyear.

**Sulfur.** Our net sulfur production nearly doubled in 1968, averaging 1,117 long tons a day compared with 575 tons daily the previous year. This was primarily the result of the completion of two large jointly owned gas-processing plants in Alberta, at East Crossfield and Bigstone.

For the first time, our production of sulfur derived from natural gas was supplemented with mined sulfur, processed at our new High Island plant on the Gulf Coast of Texas.

Gas Processing. To meet growing demand for natural gas, liquids, and sulfur, we expanded our gross operated gas-processing capacity by 760 million cubic feet daily. In addition to the two new Canadian plants mentioned above, we completed building four plants and expanded four others in Louisiana, Texas, New Mexico, and Oklahoma.

We now operate 37 plants for ourselves and partners. Gross operating capacity totals 3.1 billion cubic feet daily and liquids-producing capacity is 116,500 barrels daily. We also have an interest in 30 plants operated by others.

**Oil and Gas Reserves.** Our successful drilling programs and active secondary recovery projects increased our net proved reserves, despite record-breaking production.

After producing 180 million barrels during the year, we increased reserves of crude oil and natural gas liquids by 39 million — bringing the total at year end to 3,271 million barrels. These estimates of reserves include oil recoverable through secondary methods only where the projects are already in operation.

Largely by developing several new gas fields in Canada, we added 468 billion cubic feet of natural gas to our reserves after producing 1,037 billion cubic feet during the year. By year end, total reserves were estimated at 20,464 billion cubic feet.

**Discoveries.** We drilled or took part in drilling 576 exploratory wells, about 46 per cent more than in 1967. Our net interest was equal to 408 wells. The most important new wildcat finds included the following (with all references to acreage expressed in net terms):

South Louisiana: We made eight significant discoveries in this area, most of them offshore, and we own more than 50,000 acres in the immediate vicinities of these discoveries.

At Redfish Point, a full-interest well tested 6.2 million cubic feet of gas daily with 85 barrels of condensate from 227 feet of pay. At West Delta, a 60 per cent interest well

Hackberry, a multiple-zone field where we have more than 100 net oil wells, is one of our largest producers in southern Louisiana.



#### Production

flowed 4 million cubic feet of gas with 250 barrels of condensate daily, and we made plans for a six-well producing platform.

Two joint-interest wildcats in the Eugene Island area and another in the South Marsh Island area encountered substantial pay zones. Platforms are planned for all three.

A half-interest wildcat in the Ship Shoal area tested two zones for a total flow of 3.1 million cubic feet of gas with 621 barrels of condensate daily. Other important tests were productive in the East Cameron and Bayou Carlin areas.

Alberta: In the Kaybob South (Fox Creek) area, a significant discovery, in which we have 41½ per cent interest, netted 100 feet of sour wet gas pay, touching off a drilling program to develop condensate, natural gas, gas liquids, and sulfur reserves along a 20-mile front. We hold 8,600 productive acres in the field and substantial additional holdings along the trend. In the Ricinus-Strachan area, we made two significant joint-interest discoveries late in the year. We own about 26,000 acres in the immediate area, a substantial amount of which lies between these wells. Plans were made for an active drilling program. At Northwest Gold Creek, a full-interest wildcat tested at rates from 9 to 15 million cubic feet of gas daily. We own 25,700 acres surrounding the discovery. In the Amber River area we encountered thick oil and gas pay in a half-interest wildcat.

Powder River Basin: Two discoveries in the Muddy formation sparked considerable development drilling in this Wyoming area. Following discovery of oil in two half-interest wildcats at Sandbar, 30 miles southwest of Bell Creek, we rapidly drilled 15 development wells on our 8,250-acre block. Forty miles south, a full-interest well flowed 144 barrels of oil daily on a 3,320-acre block.

West-Central Louisiana: On the southeast flank of Minden Salt Dome, a full-interest wildcat flowed 8.2 million cubic feet of gas daily with 85 barrels of condensate; a north offset confirmed the discovery.

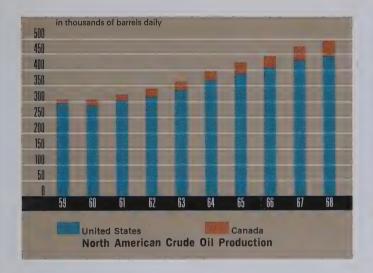
South Texas: A wholly owned well directionally drilled from Padre Island on a 5,700-acre lease netted 27 feet of gas pay. The well tested 3.3 million cubic feet daily.

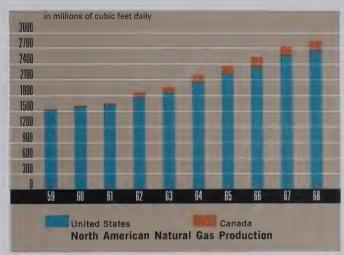


Platform operator checks panel of computer that controls natural gas production from 31 wells in field off Louisiana coast.

New process causes tar to flow like oil from Athabasca tar sands of northeastern Alberta.







**New Holdings.** With acquisition of new acreage in promising areas, by year end our net undeveloped acreage totaled 11.7 million acres in the U.S. and 4.0 million in Canada. In addition, we held about 42 million acres in permits and reservations in Canada. Among our most important new acquisitions and exploration ventures are the following:

Alaska: On the North Slope, our exploratory efforts increased considerably, and we obtained leases or priorities on leases on an additional 65,000 acres, for a total in this area of about 280,000 acres. We staked a wildcat about 60 miles southeast of recent Prudhoe Bay discoveries, in preparation for drilling a 10,000-foot well in 1969. This well was spudded in February. In the Bristol Bay Basin of southwest Alaska, five months of seismic work preceded the staking of our first wildcat, which was also being drilled early in 1969. We acquired leases or priorities on an additional 189,000 acres, bringing the total in the Bristol Bay Basin to 276,000. We augmented our already large holdings in Cook Inlet, and continued seismic work in the Gulf of Alaska.

Eastern Canada: Plans were made to build a new drilling unit to explore on the Grand Banks off the coast of Newfoundland. We added 1.4 million acres to our Grand Banks holdings and obtained permits on 2.6 million acres on the Flemish Cap east of the Grand Banks — bringing to nearly 20 million acres our entire holdings in this general area. Seismic work continued on the Grand Banks and in the Gulf of St. Lawrence.

Northwest Canada: In the Peel Plateau area of the Northwest Territories, we acquired 1,172,000 net acres, and now have 1,745,000 acres in this frontier area.

South Louisiana: We gained control of 46,000 more acres in the western Hackberry trend, bringing the total to 138,000 acres — or about 65 per cent of a 40-mile fairway. We obtained geophysical options on 318,000 acres in the Miocene trend. Seismic programs were carried out along both trends.

Rocky Mountains: We acquired 225,000 acres in the

Powder River Basin of Wyoming and Montana, bringing the total to 1.1 million. To help evaluate these holdings, we supported more than 100 wildcat operations on or offsetting our acreage. We also acquired nearly 1 million acres in the Williston Basin of Montana and North Dakota and 630,000 acres in the North Denver Basin of Wyoming and Nebraska. In Nevada, we drilled six wells to evaluate large holdings and obtained control over an additional 117,000 acres.

Other acquisitions included 182,000 acres in the Michigan Basin and 23,000 in the Anadarko Basin of Texas and Oklahoma.

**Development.** In 1968, we participated in drilling 975 development wells, and our net interest was equal to 566 wells. The principal areas of development, with all figures reflecting net interest, are:

Canada: After our successful discovery at Kaybob South (Fox Creek) field in Alberta, we completed three development wells and started two wells to help define the limits of what has become Canada's largest gas field. In the Beaver River-Pointed Mountain area of northwestern Canada, we completed two more development wells, bringing our total to five. Our proven reserves there increased by about a half-trillion cubic feet.

Big Horn Basin: We drilled or worked over 26 wells in the Madison and Tensleep formations of the Elk Basin field in Wyoming and Montana. At the Little Buffalo Basin field in Wyoming we drilled or worked over a total of 23 wells to boost production by 3,400 barrels daily. In the Torchlight field, Wyoming, seven new wells raised output by 3,300 barrels daily.

Basin Dakota Area: Thirteen completions increased gas production by 8.7 million cubic feet daily in this New Mexico field. We now have more than 200 wells producing 110 million cubic feet of gas daily.

Onshore Louisiana: We increased reserves at East Holly Beach field with three new wells, and gas sales began at the rate of 30 million cubic feet daily. Development con-

#### Production

tinued on several salt domes, including West Hackberry field with 21 new completions, Edgerly field with 15, and Bayou des Allemands with 5, increasing total production from these three fields by 2,280 barrels daily. Along the Mississippi Wilcox trend of Louisiana, we drilled 12 producers for an additional yield of 855 barrels of oil daily.

West Texas: In the Slaughter field, 14 new wells, an active work-over program, and continued response to water-flood operations boosted production by 2,400 barrels a day at year end. We developed the new Walker Devonian field where five wells now produce 885 barrels of oil daily. In the deep Gomez (Ellenburger) field our drilling activity resulted in a substantial increase in gas reserves. One well, in which we have 35.2 per cent interest, had a potential of more than 510 million cubic feet daily.

TWG Area, Oklahoma: Twelve wells were completed in this portion of the Anadarko Basin, boosting the total in the area to more than 80. Gas from these wells is committed to intrastate markets.

Texas Gulf Coast: With 13 new oil producers and five new gas producers, production in the Luby field increased by 1,175 barrels and 13 million cubic feet of gas daily. At the Hastings field, we completed 12 new producers, adding 500 barrels daily to production.

Athabasca Tar Sands. After successfully testing our unique in situ (in place) burning process for producing the tar sands, we asked the Alberta government in December for permission to expand the project to rates up to 8,000 barrels daily. Known as COFCAW (Combination of Forward Combustion and Waterflooding), our new patented process involves injection of air into the formation and ignition of the tar with a catalytic tool through an injection well. The formation is heated to at least 200 degrees Fahrenheit, causing the tar to flow more readily. Water is then injected into the formation, and through the combined effects of heat, gas, and water drives, the tar oil is displaced ahead of the combustion front into producing wells. We contemplate expanding the project

to about 60,000 barrels daily after improving the production technique further.

Other thermal-recovery research continued in several U.S. oil fields. We foresee wide application of COFCAW in secondary and tertiary recovery programs.

**Increased Efficiency.** Application of research and the development of new technology helped trim costs further in 1968.

We greatly accelerated our "optimized" drilling program, involving computerized analysis and the most advanced petroleum technology. About 10 per cent of our wells drilled in 1968 were optimized. By taking all available drilling and geological information from nearby wells and selecting the most efficient combinations of drilling variables — type of drill bit, weight on bit, mud solids, and many others — we reduced the hole-making costs for many of our wells by as much as 25 per cent. Within several years, we expect to be optimizing at least half of our drilling, and the remainder of our wells should be benefiting indirectly.

We planned our fourth computerized automation system during the year for installation in 1969 at the Hastings field on the Texas Gulf Coast. The project will consolidate 90 lease batteries with 419 wells into 41 well-test stations. The system will control water removal, scan for alarms, allocate production to individual leases, conduct well tests, and perform many routine functions.

We installed other automation facilities in our offshore and marshland gas fields to monitor operations and control production remotely. We use radio alarm systems extensively in many remote areas to minimize production downtime

Refinements in secondary recovery techniques greatly enhanced our ability to increase oil recovery. Last year, we participated in 38 new secondary recovery projects, and took part in forming 31 units as a preliminary step to secondary recovery. By year end, we had an interest in 472 secondary recovery projects, and operated 202 of them.

# Manufacturing

Domestic refinery runs rose 5 per cent in 1968, to a record 853,898 barrels a day of crude oil and natural gas liquids.

Crude distillation capacity at our largest refinery in Whiting, Indiana, was increased to 291,000 barrels daily, up 50,000. The plant is expected to operate at about 270,000 barrels a day until downstream process facilities can be expanded.

At Texas City, Texas, where crude-running capacity was previously raised to 241,000 barrels a day, several downstream facilities were completed. One was a 40,000-barrel-a-day Ultraformer, using a process developed by our research scientists.

Another was a 50,000-barrel-a-day aromatics recovery unit. Automated gasoline-blending equipment and facilities to produce more steam and electricity also were added.

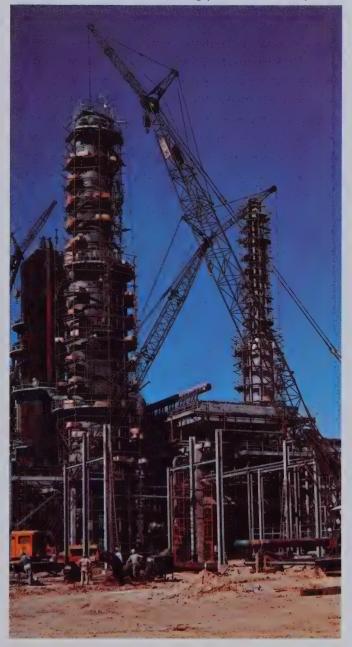
Scheduled for completion at Texas City in 1969 is a 40,000-barrel-a-day Ultracracker, the first unit employing a process developed by our research scientists to convert heavy hydrocarbons into lighter, more valuable materials.

Other significant developments include installation of facilities to improve processing of Iranian crude at our Baltimore, Maryland, refinery; new dock facilities at Yorktown, Virginia, for handling larger ships; modernization of the Casper, Wyoming, refinery's gasoline blending system, and new facilities for liquefied petroleum gas production and shipping at Whiting.

At the Whiting refinery a central time-shared computer controls the performance of a 200,000-barrel-a-day crude distillation unit and a 21,000-barrel-a-day Ultraformer, monitors the operation of a 60,000-barrel-a-day cracking unit, and controls engine-testing of motor oils at our nearby automotive laboratory. At the year end, computer control of a crude unit at Sugar Creek, Missouri, and a propylene recovery unit at our Wood River, Illinois, refinery were being developed.

A further research aid to cost control is a portable ultrasonic device that permits a single inspector to measure metal thickness and detect flaws in equipment that is on stream. We patented and have licensed this device.

At Texas City, first unit of its kind using our Ultracracking process nears completion.







Exploration
Production
Refineries
Refineries Under Construction
Chemical Plants
Chemical Plants Under Construction
Marketing

# Chemicals and Fertilizers

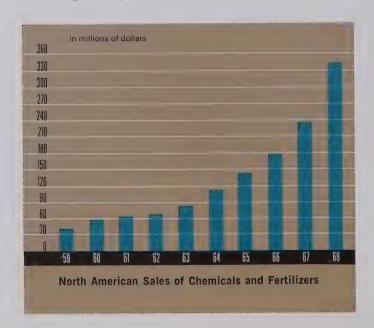
Domestic sales of chemicals and fertilizers increased to a record \$342 million, a gain of 52 per cent over 1967. Chemical product sales amounted to \$290 million, up 66 per cent, and fertilizer sales totaled \$52 million, a rise of 3 per cent.

Research has paved the way for the large sales increases we have been enjoying. For example, the rapid worldwide growth of polyesters is based largely on our technology for making two chemicals. In 1968, about half the Free World capacity to produce the polyester-intermediate, terephthalic acid, and some 40 per cent of the Free World capacity for paraxylene, its precursor, were based on our processes, being used by our plants or our licensees.

#### **CHEMICALS**

Expansion in 1968 was highlighted by increases in capacity and sales and by the acquisitions early in the year of Avisun Corporation and of Patchogue-Plymouth Company.

Avisun Corporation, a leading U.S. marketer of the versatile plastic, polypropylene, completed an increase in



capacity of its New Castle, Delaware, polymer plant to 200 million pounds a year and began a further expansion to 250 million. Avisun's film plant at New Castle began a 50 per cent expansion.

Patchogue-Plymouth, now a division of Avisun, manufactures polypropylene carpet backing and fabric for bags. Its production facilities in Hazlehurst, Georgia, were complemented by a new plant in Nashville, Georgia, which began weaving polypropylene tape fabric for carpet backing.

Demand for terephthalic acid (TA) and dimethyl terephthalate (DMT), used in manufacturing polyester fibers, has supported major expansion of our facilities at Decatur, Alabama. Combined sales of the two products increased 66 per cent over 1967.

Sales of our domestically-produced additives, notably detergents and inhibitors for lubricating oils, increased 27 per cent over 1967. All our plastics, both resins and fabricated products, set sales records.

Sales of our chemicals used in oil production increased 37 per cent as we began marketing them in Canada, Alaska, and Argentina, and introduced several new additives for drilling fluids.

Our sulfur sales increased to 387,700 long tons, from 319,600 in 1967.

Our second paraxylene unit went on stream July 1 at Decatur, providing the feed stock for the terephthalic acid and dimethyl terephthalate units. We became the only major supplier of trimellitic anhydride by completing a unit at Joliet, Illinois, capable of producing 50 million pounds a year. This product is used primarily to keep vinyl plastics flexible.

Nearing completion at Texas City, Texas, were an oil chemicals unit, a styrene monomer unit that will produce 500 million pounds a year, and a polybutene unit with a capacity of 23 million gallons a year.

We awarded a construction contract for a plant to produce 100 million pounds a year of high-density polyethylene at Chocolate Bayou in Brazoria County, Texas, using our process. Units to be built at Texas City will



Bernard Schwartz, right, explains point about Patchogue-Plymouth carpet backing manufacture to Standard Oil Chairman Swearingen.



Samples of plastic products made in our fabricating plants.

Crude oil pipeline link from Salt Creek to Casper was part of expansion to increase capacity from Wyoming eastward.



produce 180 million pounds of isopropanol and 240 million pounds of acetone a year. We also built a plastic-pipe plant, our third, in Monroe, Georgia.

#### **FERTILIZERS**

In December we began start-up operations on a new 1,500-ton-a-day ammonia plant, raising our total ammonia manufacturing potential at Texas City to 2,100 tons a day, the largest for any single U.S. location. We ceased operation of a 400-ton-a-day, partly owned 12-year-old plant, using an older process, at Hammond, Indiana.

While fertilizer prices were disappointing in 1968, the demand for liquid fertilizers is growing, and our ability to market them through our farm outlets is increasing. Merging our fertilizer marketing subsidiary into the operations of American Oil Company has added hundreds of our rural bulk plant agents as salesmen for these products.

Completion in 1969 of a new Crop-Mate fertilizer manufacturing plant at Mt. Carmel, Illinois, will give us 15 such plants, producing a stable base liquid for nitrogen-phosphorus-potash blends. Mt. Carmel will serve 45 surrounding retail plants, where final blending is done. At year end we had five soil-testing laboratories and 708 retail fertilizer outlets.

A new "Crop/Guide Plan" developed in 1968 enables our agents and fertilizer plant managers to make fertilizer recommendations for various crops and soils.

### Transportation

Our pipelines moved record volumes of both crude oil and refined products in 1968. New partly owned crude pipelines also started operation, increasing our capacity.

Our common carrier crude oil pipelines delivered an average of 1,012,000 barrels daily, up 10 per cent from the 1967 record volume. We added 175 miles of new pipe and built or modernized 32 pumping stations. We retired 414 miles of old line and replaced 74 miles in a cost reduction program.

Our products pipelines moved an average of 420,000 barrels a day from refineries to markets, 8 per cent over 1967. Capacity was increased 5 per cent by installing additional power. We also are installing a new control and telemetering system to reduce costs and aid throughput.

First deliveries of crude oil were made by the 40-inch Capline, in which we own 9.6 per cent interest, from St. James, Louisiana, to Patoka, Illinois, and the 26-inch Chicap line, of which we own 23.4 per cent, from Patoka to the Chicago area.

Our inland and coastal vessels provide large-volume flexibility. Our Great Lakes tanker fleet moved 14.3 million barrels of products in 1968. Our river barges carried 5 million barrels, and barges we hired carried 12 times that volume. Our domestic ocean fleet carried 22.4 million barrels of our products in coastal trade.

# Marketing

Our refined product sales in North America rose 5 per cent to 897,748 barrels a day. This increase, together with slightly improved prices for most major products, resulted in a 7 per cent rise in product sales revenues.

Sales of gasoline averaged a record level of 436,786 barrels a day. While there was retail price weakness in many markets, our realizations on gasoline were up slightly from 1967.

Domestic sales of our diesel fuel, jet engine fuel, and asphalt were all at record levels, both in volumes and the amounts we realized from them.

More than 30 new or improved products, developed in our research laboratories, were commercialized in 1968. They included a low-temperature snowmobile engine oil, improvements in our three top service station motor oils and in some commercial oils, fluids meeting new automatic transmission specifications, a multigrade automotive gear lubricant, a long-life grease for nuclear submarines, a helicopter bearing grease, metalworking industry fluids for drawing, forging, quenching, and cutting, and a furnace oil containing a deicer additive, for Midwest regions that have unusually cold winters.

We also developed and introduced our radial oval tire. The Amoco 120 SS Radial Oval combines two concepts of tire construction, with two body plies of polyester fabric running across the tire, and four belts of rayon running the circumference. This construction results in many improvements over ordinary tires.

A new sales aid for technical commercial product marketing personnel is an electronic data system that continuously updates product information and identifies potential sales prospects in the metalworking and transportation fields.

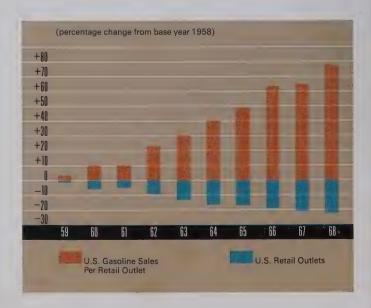
In 1968 we conducted two service station games, to compete with other marketers and to increase sales. More than one million customers won prizes of cash or cars in these games.

We became the first major oil company to provide a revolving charge plan for our credit card customers. We

also offered millions of our credit card customers an opportunity to join the American Torch Club, which, in addition to our own credit uses, permits members to charge purchases worldwide nearly everywhere that the Diners Club card is honored. Holders of the new card are also entitled to revolving charge privileges. Under this program, the customer decides how much he wishes to pay each month — it can vary from 10 per cent up to the total amount — and a service charge is assessed only on the unpaid balance.

The American Oil Motor Club doubled its membership in 1968. The network of authorized stations serving club members was expanded 8 per cent.

Many aspects of our marketing had a new look: The dealer and agent have a new, two-tone blue uniform. There's a feminine version available for girl attendants. A new service station vending program features machines that conform with Company colors. This improves the appearance of our stations. Another new look is a two-story, contemporary design in a truck-plaza building program that will add at least a dozen outlets in 1969. In the



Southeast, we completed four "bantam" American Way restaurants, small, informal versions in our continuing program to evaluate the effectiveness of one-stop, service station-restaurant combinations.

The major new looks, however, were apparent in the very strong trend to build our service stations either in an Early American or a contemporary ranch-type style. Nearly all our stations built in 1968 were of one of these two types, with a slight preference for the former.

The changing nature of traffic, and the success of our selective marketing program, cause the abandonment of hundreds of low-volume stations each year. Where they are not converted to other uses, they have often run the risk of becoming eyesores. As a contribution to community betterment, and to gain better acceptance for erection of new buildings, we started a program in 1968 to raze all abandoned service stations wherever a suitable alternative use cannot be found. This has produced valuable goodwill for the Company.

In 1968, Tuloma Gas Products Company was merged into American Oil Company, strengthening our marketing of primarily rural products — liquefied petroleum gas and fertilizers. Today the former Tuloma employees also sell liquid fuels, lubricants, and agricultural chemicals to their customers, and American Oil agents market LP-Gas, ammonia, and other liquid fertilizers to their customers. This "cross-selling" of products is possible in most areas of the country. We now have approximately 5,000 persons directly involved in agricultural marketing, offering single-source service.

Our line of home comfort equipment was expanded in 1968 to include LP-Gas heating equipment and appliances such as clothes dryers and ranges. Sales of such equipment in 1968 totaled \$8 million.

Our research with the use of fuel oil for crop-drying—a relatively large and untapped new use for energy on farms—has resulted in a successfully field-tested oil burner that can be fired directly into the drying-air stream without impairing taste, odor, or color of the grain.



New Early American-type service station. We are building more stations of this type than of any other style of architecture.

One of six farm service centers built in the Midwest in 1968.



American Oil President L. W. Moore inspects new service station.



# Highlights

Our net overseas production of crude oil and natural gas liquids increased by 51 per cent in 1968 to an average of 117,268 barrels a day. Production in Argentina, which is not included in our consolidated figures, increased to an average of 34,700 net barrels a day for the year.

Facilities were virtually completed for delivering natural gas from the British North Sea to shore.

Product sales abroad increased by 59 per cent, to an average of 79,525 barrels a day. We added 578 branded retail outlets in Europe and Australia, to reach a total of 2,076.

### Exploration and Production

#### LATIN AMERICA

In Argentina, production of crude oil averaged 34,700 net barrels a day in 1968, up from 28,700 net barrels a day in 1967. All production is delivered to the Argentine government agency. By year end we had drilled 58 of 150 wells we agreed to drill as a part of a 1967 settlement of a contract dispute. We are negotiating a drilling and production service contract covering more than 500,000 acres in an area where we have not operated previously.

In Trinidad, we completed five exploratory tests offshore. Natural gas was tested in three. Additional drilling will be required to determine the full significance of these discoveries.

In Colombia, our 25 per cent share in production from three fields averaged 3,100 net barrels a day.

In Venezuela, our one-third interest in production from Lake Maracaibo leases averaged slightly more than 2,800 net barrels a day in 1968.

#### **EUROPE**

United Kingdom. Onshore facilities for natural gas delivery and a 30-inch pipeline connecting the Leman Bank field in the North Sea to the Bacton terminal are in the final stages of completion by the Amoco-British Gas Council group. The group expects to deliver about 160 million cubic feet daily early in 1969, increasing the flow to 800 million cubic feet daily after five to eight years. Basic prices are 28.7 cents per thousand cubic feet from the Leman field, and 29 cents from the Indefatigable field, which will be developed later.

Three unsuccessful exploratory wells were drilled in the North Sea in 1968, and a wildcat was drilling at year end. Our 30.7 per cent interest in 2,088,000 acres includes parts of both the Leman and Indefatigable fields. Amoco also holds 22.2 per cent interest in an additional 739,000 acres offshore.

Norway. The Amoco-Noco group's first offshore wild-cat was abandoned due to difficulties with drilling equipment, aggravated by severe North Sea weather. Two wild-cats are to be drilled in 1969 in the 1.2 million acres offshore where we hold licenses. Our interest is 28.3 per cent.

Germany. In southern Germany, we and another company are exploring two concessions covering 508,000 acres.

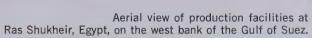
The Netherlands. Amoco Netherlands, as operator, and its two partners were granted exploration rights covering 620,000 acres on seven offshore Dutch North Sea blocks, and licenses on 264,000 acres on land in North Holland. Our interest in these areas will range from 36 to 60 per cent. We continued negotiations with the Dutch government for a production license covering 69,000 acres in North Holland where we drilled five gas wells earlier.

#### **AFRICA**

Egypt. We completed 13 producing wells in our 50 per cent owned El Morgan field in the Gulf of Suez, for a total of 33. Five earlier wells were placed on production. At year end, 26 of the 33 wells were connected to production facilities. Gross production of crude oil from El Morgan field increased steadily to about 180,000 barrels a day at year end, and averaged 139,500 barrels a day for the year, of which 59,000 barrels were net to us, compared with 16,400 barrels a day net the previous year. We added

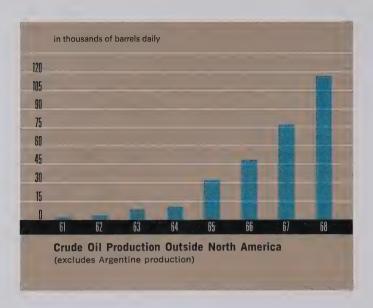


Director F. C. Osment and President R. C. Gunness (both at top of stairs) inspect Cremona refinery with manufacturing executives G. Molina and W. T. Herget.









a second drilling rig in the Western Desert, where our rights cover more than 12.5 million acres. Three exploratory wells were dry holes. Two were drilling at the end of the year.

Libya. Production from the Khuff field averaged 960 barrels a day in 1968, and will be terminated in mid-1969. The field has produced about 5.5 million barrels of oil. We drilled four exploratory wells elsewhere during the year. Three were dry, but we completed the fourth, which will be produced.

Mauritania. We spudded our first wildcat well, in which we have 60 per cent interest, about 150 miles south of Port Etienne. Drilling was in progress at year end.

Mozambique. With our partner, we carried out a marine seismic survey preparatory to drilling offshore in 1969. We own a half-interest in 11.8 million acres onshore and offshore.

#### MIDDLE EAST

Iran. Production from our two half-interest producing fields in the Persian Gulf averaged 51,000 net barrels daily. Gross crude oil production from 10 wells in the Darius field averaged 93,600 barrels a day during 1968. Another development well was drilling at year end. Cyrus field averaged 8,800 gross barrels a day for the year. One additional well drilled in Cyrus in 1968 was tested at 4,000 barrels a day.

The settlement of the boundary-line dispute in the Persian Gulf between Iran and Saudi Arabia has permitted the resumption of our delineation drilling in the Fereidoon field.

#### ASIA

Taiwan. We conducted an airborne magnetometer survey in the Strait of Taiwan and have an option to select and explore about 2.4 million acres in partnership with the Chinese Petroleum Corporation, an agency of the Nationalist Chinese Government.

Thailand. The Thai government awarded us two blocks consisting of about 6 million acres in the Gulf of Thailand. We have done reconnaisance seismic work.

# Marketing and Manufacturing

#### **EUROPE**

Italy. The Cremona refinery's throughput averaged 53,400 barrels a day, up from 30,600 in 1967. Shipping facilities are being expanded.

Amoco branded retail outlets in Italy increased from 653 to 1,086 at year end. Some 370 of the added stations were previously owned by us but were under lease to another marketer. Sales of refined products rose 82 per cent.

United Kingdom. Amoco branded outlets increased to 256. A crude oil-processing agreement with another company provides 75 per cent of our product requirements, which reached 8,800 barrels a day at year end.

West Germany. We opened our 297th Adler brand retail outlet in West Germany at year end. A two-year agreement with extension options was negotiated with a German refiner for processing our crude, which will provide a significant portion of our product requirements for 1969 and 1970. Sales of refined products rose 57 per cent.

#### **ASIA**

The 50,000-barrel-a-day refinery at Madras, India, in which we own 13 per cent interest, was about 60 per cent complete at year end. Start-up is scheduled for 1969.

#### **AUSTRALIA**

At Brisbane we expanded our refinery's Ultraformer from 3,800 to 5,000 barrels a day, built a 13-ton-a-day sulfur plant, and began constructing a 1,500-barrel-a-day

Amoco Brisbane, one of our new supertankers, nears Australian refinery.



alkylation unit. Refinery throughput averaged 17,900 barrels a day for 1968.

Retail outlets operating under the Torch and Oval increased to 437 by year end. Sales of refined products rose 10 per cent over 1967.

#### Chemicals and Fertilizers

#### **EUROPE**

At Geel, Belgium, the bulk of construction was completed on a plant that will produce terephthalic acid for conversion to 110 million pounds a year of purified terephthalic acid and 100 million pounds of dimethyl terephthalate.

At Consett, England, a new plant began weaving polypropylene carpet backing that Patchogue-Plymouth has made popular with mills in the United States.

At Stevenage, Hertfordshire, England, we opened an engine-testing laboratory, which is used to evaluate lubricating oils and their additives.

#### ASIA

Adjacent to the refinery at Madras, India, construction began on a fertilizer plant in which we have 49 per cent interest. To develop markets for its production, we are importing and selling equivalent fertilizer. Demonstration farms and controlled test plots are part of the program.

At Kawasaki, Japan, Furukawa Chemical Industries Company, Ltd., in which we have 25 per cent interest, expanded the capacity of a newly built polyethylene unit to 66 million pounds a year. An existing unit has capacity of more than 57 million pounds a year. Furukawa also added a 13 million-pound-a-year polybutene plant to its present 9 million-pound-a-year polybutene capacity.

At Mizushima, Japan, we have 50 per cent interest in an isophthalic acid plant being built by A.G. International Chemical Company to produce 22 million pounds a year. Our partner is Japan Gas-Chemical Company of Tokyo.

#### MIDDLE EAST

On Kharg Island, in the Persian Gulf, a plant to produce 500 tons a day of sulfur and 5,000 barrels a day of liquefied petroleum products is under construction and is expected to start operation in 1969. We own one-half interest.

# Transportation

We moved about 50 million barrels of foreign crude oil, primarily from our fields in Egypt and Iran to our refineries at Cremona, Italy; Brisbane, Australia; and Yorktown, Virginia. To meet our requirements, 16 supertankers were term-chartered during the year. The *Amoco Cremona* and the *Amoco Brisbane*, 73,000 deadweight tons each, entered our proprietary fleet.

### People





in millions of dollars

During 1968 there were no major labor difficulties, but early in 1969 unions representing some of our employees struck a number of our facilities. Operations were maintained by supervisors, and we were able to serve practically all of our customers' needs. The strikes ended with two-year contracts involving general wage increases of 6 per cent in 1969 and 4½ per cent in 1970, and changes in employee benefit plans which will result in substantial additional costs.

In 1968 we directed major efforts to develop and apply a manpower planning system that forecasts long-range and short-range manpower needs. Short-range projections are translated into recruiting goals. This planning, followed by other special efforts, resulted in vigorous recruiting programs with which we were able to fill 100 per cent of our requirements for professional and technical personnel.

An appraisal system keeps top management currently advised of managerial performance, developmental needs, and the readiness of replacements to back up present managers. We are also focusing on practical development plans to help answer the individual's needs in his present managerial assignments, and to supply the experience he needs to be an effective manager in future assignments.

In 1968 we began a six-month initial training program for marketing representatives, and started operating a school at Hinsdale, Illinois, using the latest procedures and aids to teach product knowledge and salesmanship.

Rural training centers were established in three regions for agents and fertilizer plant managers.

Instruction of refinery operators is now aided through use of a portable, analog-computer training device, developed in our Whiting laboratories and licensed for manufacture and sale in 1968. Careful training in proper manufacturing procedures paid off in long production runs, reduced costs, and uninterrupted safety records at several refineries in 1968.

In a small but important project, progress was made in the employment and training of disadvantaged young people who need help to qualify for entry jobs.

Again in 1968, our number of employees increased, from 45,375 to 47,809, as we expanded into new fields.

Companywide expenditures for all technical research and development in 1968 totaled about \$25 million gross before credit for royalty income. We obtained 359 new patents and applied for 340 others. Several previously patented developments were commercialized. Much of our research made use of computers to help our scientists achieve their goals faster, easier, and better.

#### **EXPLORATION AND PRODUCTION**

Research in our Tulsa laboratories in 1968 increased drilling speeds, improved oil recovery methods and offshore structure design, and developed important geophysical methods to search for petroleum.

Plans were announced to commercialize our liquid percussion drill, which hammers and rotates at the same time. It penetrates hard rock up to five times faster than conventional drilling, yet prolongs drill bit life.

We successfully tested a unique polymer drilling fluid, in which clay particles are "bunched up" rather than finely

Scientists examine liquid percussion drill after a test.



dispersed. This new mud further speeds drilling by loosening rock chips under the bit.

Computer analysis is aiding research in many ways. By mathematically simulating petroleum reservoir performance, we can determine the best method to make a field or a well produce.

A new system for processing seismic data gathered in the field has helped improve our interpretation of these clues to locations of oil and gas structures.

We devised and tested a new way to use aeromagnetic survey data to determine the depths of buried igneous rock, and thus, the possible maximum depths of rocks that could contain petroleum. To visualize subsurface structures, we have been successful in creating three-dimensional pictures of earth structures, by using laser beams in a technique called earth holography.

Using computers to simulate mathematically what happens to drilling platforms under adverse conditions, we improved designs of offshore structures for Alaska's Cook Inlet and the North Sea.

#### PROCESS AND PRODUCT DEVELOPMENT

At the new Naperville Technical Center, in a Chicago suburb, a utilities building and sales technical service laboratory for chemicals and plastics neared completion at year end. Construction of three more buildings will begin in 1969.

We opened a laboratory in Atlanta to develop technology for the rapidly expanding carpet backing and textile uses for polypropylene.

A highlight in our research on polypropylene uses was development of a successful method to electroplate polypropylene. Potential applications are broad in the appliance and automotive industries.

At our Whiting laboratories, we have developed computerized mathematical models that simulate major refining processes, entire refineries, and even Companywide operations. These models are proving valuable in refinery scheduling and planning, in process development, and in

designing and guiding operations of commercial units.

To aid in appraising major ventures, we developed a faster, more convenient version of a computerized statistical technique, called risk analysis. It indicates probable areas of profitability, sizes of the risks involved, and specifies sources of uncertainty.

We continued to develop and build new safety devices and special automatic instruments for process and product control where adequate commercial instruments were unavailable. In many cases, we license other companies to make and sell these devices. One example is an award-winning device that reduces static charges in products flowing through a pipe, as in tank truck loading.

Having established the feasibility of producing high protein food supplements from petroleum-derived raw materials, we increased the emphasis on improving their palatability, appearance, and texture.

Research engineer tests emissions from gasoline engine.



With continuing emphasis on conservation, we substantially improved water treatment facilities at our refineries and chemical plants.

At our Whiting, Indiana, refinery, construction will start by mid-1969 on a third-stage purification system for effluent water. This water is already processed in a modern oil-water separator, followed by our patented bioflotation process.

The third-stage treatment will use chemicals to coagulate remaining suspended contaminants into lumps that will be brought to the surface by tiny air bubbles. Sludges from all the water purification steps will be partly dewatered and incinerated. The ash remaining from incineration will be used as land fill.

At Yorktown, Virginia, the effluent treatment system is being enlarged and modernized.

Construction started at our Mandan, North Dakota, refinery on a fluidized-bed incinerator, partly financed by a government grant, to test this equipment for smokeless disposal of sludges and spent caustics. Another disposal method tested in our laboratories involves the concentration of sludges by pressure filtration and subsequent incineration.

Under a government contract, we developed an instrument to determine rapidly the amount of ammonia and total nitrogen in waste waters.

We installed a new system to recover oil from ballast water pumped from lake tankers at our canal dock at East Chicago, Indiana. Measures to prevent oil spills were adopted at other locations.

We licensed the manufacture and sale of our catamaranmounted oil skimming device that recovers oil spilled in waterways.

As part of our contribution to the Inter-Industry Emission Control Program for automobiles, in cooperation with the Ford Motor Company and several other oil companies, we are studying catalytic methods to reduce nitrogen oxides and ways to remove lead particles from exhaust. We tested more than 100 catalysts. The goal is to produce an essentially smog-free gasoline powered automobile.

# Ten -Year Financial Summary | Standard Oil Company (Indiana) and Subsidiaries

Dollar amounts in millions except where noted

Sales	and	Other	Operating	Revenues	(including excise taxes)
Jaits	GHU			nevellue3	(incluaing excise taxes)

Year	Refined Products	Crude Oil	Natural Gas	Chemicals and Fertilizers	Tires, Batteries, Accessories, and Miscellaneous	Other Sales and Operating Revenues	Total Operating Revenues
1968	\$2,692	\$477	\$160	\$352	\$120	\$117	\$3,918
1967	2,465	471	153	232	109	106	3,536
1966	2,405	395	136	178	107	86	3,307
1965	2,205	374	129	141	97	79	3,025
1964	2,038	386	125	111	90	72	2,822
1963	1,995	377	110	80	79	68	2,709
1962	1,950	375	97	66	74	65	2,627
1961	1,824	368	87	62	68	61	2,470
1960	1,826	345	. 79	58	61	60	2,429
1959	1,777	347	71	39	57	57	2,348

# Financial Condition at Year End

Year	Total Assets	Working Capital	Current Ratio	Liabilities Payable in Later Years	Borrowed and Invested Capital	Net Worth	Book Value Per Share (in dollars)**
1968	\$4,737	\$668	2.05 to 1	\$818	\$3,951	\$3,074	\$43.39
1967	4,188	634	2.16 to 1	512	3,489	2,924	41.24
1966	4,053	702	2.45 to 1	506	3,376	2,820	39.92
1965	3,691	550	2.29 to 1	350	3,099	2,703	38.18
1964	3,446	512	2.56 to 1	340	2,998	2,605	36.73
1963	3,321	601	2.89 to 1	366	2,899	2,522	35.52
1962	3,163	534	2.98 to 1	384	2,820	2,428	34.21
1961	3,058	501	2.90 to 1	420	2,751	2,321	32.98
1960	2,927	583	3.34 to 1	424	2,650	2,218	31.63
1959	2,835	545	3.21 to 1	436	2,584	2,133	30.32
					k		

# **Exploration and Development Costs**

Year	New and Renewed Leases	Wells and Production Facilities	Dry Holes	Lease Rentals	Geological, Geophysical, and Other Exploration Expenses	Total Cash Expenditures for Exploration and Development
1968	\$84	\$201	\$79	\$12	\$58	\$434
1967	45	182	67	11	57	362
1966	55	181	74	. 11	61	382
1965	63	150	52	13	54	332
1964	59	176	60	14	53	362
1963	46	134	46	12	45	283
1962	47	129	45	14	40	275
1961	55	175	42	13	37	322
1960	52	95	30	. 12	47	236
1959	58	117	25	12	40	252

				,				
Net Earnings			Divid	ends*	Tax	(es		
Total Revenues	Total	Per Share (in dollars)**	Total Value	Per Share (in dollars)**	Excise Taxes	Total Taxes Including Excise Taxes	Year	
\$3,994	\$309	\$4.37	\$149	\$2.100	\$704	\$901	1968	
3,587	281	3.97	135	1.900	618	806	1967	
3,351	256	3.63	120	1.700	598	758	1966	
3,063	219	3.10	110	1.550	553	715	1965	
2,856	195	2.75	94	1.325	505	617	1964	
2,746	183	2.58	90	1.266	482	617	1963	
2,656	162	2.29	81	1.149	479	583	1962	
2,502	154	2.19	79	1.124	437	532	1961	
2,462	145	2.06	70	.998	423	527	1960	
2,372	140	1.98	68	.966	391	489	1959	
Cash Income		Exploration		nolders ar End	Emplo	oyees		
net earnings plus depreciation, depletion, etc.)	Capital Expenditures	Exploration Expenditures Including Dry Holes	Number (in thousands)	Shares Outstanding (in thousands)**	Number at Year End	Wages and Benefits	Year	
\$597	\$648	\$149	173	70,856	47,809	\$496	1968	
546	503	135	172	70,906	45,375	444	1967	
539	424	146	173	70,647	42,995	407	1966	
490	356	119	171	70,795	41,158	382	1965	
428	361	127	161	70,927	40,724	366	1964	
420	275	103	150	70,989	38,334	353	1963	
383	278	99	. 154.	70,971	39,189	358	1962	
356	378	92	154	70,358	41,304	355	1961	
344	252	89	160	70,120	41,706	344	1960	
311	269	77	159	70,369	43,569	348	1959	

<sup>†</sup>Figures for 1967 have been restated to reflect accounting changes adopted in 1968.
Figures subsequent to 1962 exclude the Argentine subsidiary eliminated from the consolidated financial statements as of January 1, 1963.

<sup>\*</sup> Dividends prior to 1964 include the market value on date of distribution of the Standard Oil Company (New Jersey) stock distributed as a special dividend.

<sup>\*\*</sup> Adjusted for the two-for-one stock split in September, 1964.

# Ten -Year Operating Summary † Standard Oil Company (Indiana) and Subsidiaries

	Exploration	and Deve	lopment				
	Net Producing and	Prospective Acreas	ge at Year End (in	thousands)	Net Wells Drille	d	
	Producing Leases		Undeveloped Leases		Exploratory		
Year	United States	Canada	United States	Canada	Oil	Gas	Dry
1968	2,447	614	11,696	3,967	48	51	322
1967	2,415	552	9,522	3,111	34	32	221
1966	2,387	520	8,486	3,108	35	43	192
1965	2,387	479	9,539	3,197	33	33	186
1964	2,259	412	11,758	3,591	42	43	253
1963	2,092	262	11,234	3,174	40	28	245
1962	1,998	261	13,758	3,428	34	36	150
1961	1,900	191	15,516	2,764	26	51	131
1960	1,726	98	12,761	1,984	16	41	139
1959	1,691	182	11,644	1,836	22	30	118
	Production						
	Net Production of	Crude Oil and Nat	tural Gas Liquids	(thousands of barr	rels per day)	4	
Year	Texas ·	Louisiana	Wyoming	New Mexico	Oklahoma	Other U.S.	Total U.S.
1968	224	64	60	27	25	47	447
1967	218	60	59	26	24	43	430
1966	208	55	57	23	23	39	405
1965	202	52	58	19	19	40	390
1964	191	48	54	16	17	39	365
1963	180	45	44	15	14	37	335
1962	166	. 38	45	15	13	38	315
1961	155	33	47	18	13	35	301
1960	146	33	45	15	13	37	289
1959	155	32	44	. 12	13	41	297
	Net Proved	Reserves	Manufa	cturing	Marketing	g	
	U.S. and Canada o	t Year End			Refined Products Sold (thousands of barrels per		
	Crude Oil and		Deferen	Refinery Crude	Gasoline		
	Natural Gas Liquids	Natural Gas	Refinery Input	Capacity (year end)	(including	Heating Oils	
Year	(thousands of barrels)	(billions of cubic feet)	(thousands o)	barrels per day)	natural gasoline)	and Diesel Fuels	Residual Fuel Oil
1968	3,271,064	20,464	925	1,045	459	252	86
1967	3,231,789	19,996	862	995	. 430	233	79
1966	3,159,857	19,839	829	895	435	222	81
1965	3,043,794	19,196	777	807	400	210	85
1964	2,964,760	18,580	734	774	384	198	74
1963	2,743,664	17,175	720	773	364	201	75

16,653

16,456

15,358

13,269

2,617,525

2,546,368

2,346,627

2,243,151

<sup>†</sup> Figures subsequent to 1962 exclude the Argentine subsidiary eliminated from the consolidated financial statements as of January 1, 1963.

	Is Owned	Net Wel						
			Non-Company					
	Gas	Oil	Wells to Which Contributions	Gross Wells				Development
Year	(year end)	(year end)	Were Made	Drilled	Total	Dry	Gas	Oil
1968	3,949	16,355	506	1,599	1,000	132	101	346
1967	3,881	16,440	456	1,484	936	131	110	408
1966	3,749	16,406	551	1,725	1,107	181	181	475
1965	3,536	16,136	510	1,912	1,326	163	184	727
1964	3,333	15,581	471	1,892	1,339	132	170	699
1963	2,979	13,865	448	1,655	1,211	144	121	633
1962	2,824	13,532	622	1,642	1,239	141	141	737
1961	2,631	12,943	488	1,421	1,017	111	196	502
1960	2,387	11,571	640	1,416	963	104	74	589
1959	2,268	11,164	823	1,285	837	75	88	504
	Natural Gas Sold (millions	Natural Gas (millions of						
V.	of cubic feet	cubic feet	Total	Other Foreign	Avaantina	Ivan	Equat	Canada
Year	per day)	per day)	Total		Argentina	Iran	Egypt	Canada
1968	2,727	2,833	608	7		51	59	44
1967	2,622	2,738	548	11	-	50	16	41
1966	2,427	2,533	491	16		32		38
1965	2,245	2,374	456	9		23		34
1964	2,109	2,186	405	8	The state of the s	2	·	30
1963	1,920	1,966	370	8		- 1 T		27
1962	1,807	1,834	382	3	38	-		26
1961	1,642	1,617	358	2	36	-		19
1960	1,636	1,577	322		20	-		13
1959	1,567	1,509	308	_	2	_	_	9
	ortation	Transpo						
					Outlets Served rend)			
			Crude Oil	Crude Oil, NGL, etc.,	5.66)	(year		
	Pipeline	Pipelines	Sold	Purchased		Company		0.1
Year	Traffic (million barrel miles)	Owned, Miles (year end)	barrels per day)	(thousands of	Other	Owned or Leased	Total	Other Products
1968	208,325	16,590	494	885	9,400	21,700	977	180
1967	190,425	16,788	494	838	9,300	21,800	902	160
1960	190,272	16,591	400	809	9,000	22,500	895	157
196	178,587	16,645	368	757	8,900	23,100	840	145
1964	170,312	16,978	352	769	8,400	23,900	792	136
1963	170,976	16,844	345	764	7,900	25,100	770	130
196	168,215	16,822	372	728	7,200	26,900	750	120
196	170,957	17,543	350	706	7,600	27,900	687	109
196	166,635	17,539	326	678	7,600	27,700	678	95
1959	155,332	17,609	325	650	8,600	28,400	661	90

3/2 32/.

### **Board of Directors**

# Standard Oil Company (Indiana) February 28, 1969

#### Directors

John E. Swearingen Chairman of the Board

Robert C. Gunness President

George V. Myers
Executive Vice President

Jacob Blaustein
President, American Trading and
Production Corporation

Homer J. Livingston Chairman, Executive Committee The First National Bank of Chicago

Lawrence A. Kimpton
Assistant to the Chairman of the Board

L. William Moore
President, American Oil Company

Richard J. Farrell
Vice President and General Counsel

Herschel H. Cudd Vice President; President, Amoco Chemicals Corporation

L. Chester May Vice President Finance

Logan T. Johnston
Chairman, Armco Steel Corporation

John S. Bugas Retired Business Executive

Randolph Yost President, Pan American Petroleum Corporation

Joseph S. Wright Chairman, Zenith Radio Corporation

Frank C. Osment
President, American International
Oil Company

George R. Cain Chairman, Abbott Laboratories

### Officers

F. Cushing Smith Vice President

John T. Snyder, Jr. Treasurer

Richard M. McGowen Comptroller

Earl W. Russell Secretary

# **Executive Changes**

Frank C. Osment, president of American International Oil Company, was elected a director of Standard Oil Company on January 17, 1968.

George R. Cain, chairman of the board of Abbott Laboratories, was elected a director of Standard Oil Company on May 2, 1968.

When Tuloma Gas Products Company was merged into American Oil Company in 1968, Walter R. Peirson, president of Tuloma, was elected vice president marketing of American Oil.

Lawrence A. Kimpton resigned his office as a vice president of Standard Oil November 15, 1968, but remained as assistant to the Chairman of the Board. He continues as a director.

William H. Miller, a former director of Standard Oil, retired January 1, 1969, as senior vice president marketing for American Oil, ending a distinguished career of nearly 40 years of Company service.

Lowell B. Taylor retired September 1, 1968, as president of Imperial Casualty and Indemnity Company, after 39 years of service to the Company and subsidiaries.

#### **General Office**

910 South Michigan Avenue, Chicago, Illinois 60680

#### **Transfer Agents**

The Chase Manhattan Bank, N.A.

One Chase Manhattan Plaza, New York, New York 10015

The First National Bank of Chicago 38 South Dearborn Street, Chicago, Illinois 60690

#### Registrars

First National City Bank 55 Wall Street, New York, New York, 10015

Continental Illinois National Bank and Trust Company of Chicago 231 South LaSalle Street, Chicago, Illinois 60690

#### **Annual Meeting**

The annual meeting of the Company's shareholders will be held on May 1, 1969, at the Whiting, Indiana, Community Center. Shareholders will be sent a formal notice of the meeting, together with a proxy statement and proxy, on or about March 28, 1969, at which time management will solicit proxies.

# Principal Subsidiaries and Affiliates

Standard Oil Company (Indiana)

North America	Principal business	Principal areas of operation	Per cent owned
Pan American Petroleum Corporation Midwest Oil Corporation Service Pipe Line Company Pan American Gas Company American Oil Company Amoco Chemicals Corporation American International Oil Company Amoco International Finance Corporation Imperial Casualty and Indemnity Company	Exploration and production Exploration and production Pipeline transportation Purchase, transport, and sale of natural gas Refining, transportation, and marketing Manufacture and sale of chemical products Direction of foreign operations Financing of capital requirements Insurance	United States and Canada United States and Canada United States Texas, New Mexico United States United States and abroad Outside North America Outside North America United States	100 53 100 100 100 100 100 100 100
Latin America			
Pan American Argentina Oil Company Pan American Colombia Oil Company Pan American Trinidad Oil Company Pan American Venezuela Oil Company Amoco Trading International, Ltd. West Indies Oil Company, Ltd.	Exploration and production Exploration and production Exploration and production Exploration and production Purchase and sale of oil Refining and marketing	Argentina Colombia Trinidad Venezuela Outside North America West Indies	100 100 100 100 100 45
Europe			
Amoco Europe, Inc. Amoco Oil Holdings S.A. Amoco Hanseatic Petroleum Company Amoco Netherlands Petroleum Company Amoco U.K. Petroleum, Ltd. Amoco (U.K.) Ltd. Amoco (U.K.) Ltd. Amoco Italia, S.p.A. Rheinische Mineraloel GmbH N.V. Amoco Chemicals Belgium S.A. Amoco Fina S.A.	Coordination of European activities Financing of capital requirements Exploration and production Exploration and production Exploration and production Exploration and production Marketing Refining and marketing Marketing Manufacture and sale of chemical products Manufacture of lubricating oil additives	Europe Luxembourg West Germany Netherlands Norway United Kingdom United Kingdom Italy West Germany Belgium Belgium	100 100 100 100 100 100 100 100 100 100
Africa			
Amoco Ghana Exploration Company Amoco Mauritania Exploration Company Mozambique Pan American Oil Company Pan American Libya Oil Company Pan American UAR Oil Company Gulf of Suez Petroleum Company	Exploration and production	Ghana Mauritania Mozambique Libya Egypt Egypt	100 100 80 100 100 50
Middle East			
Pan American International Oil Company Iran Pan American Oil Company Kharg Chemical Company, Ltd.  Australia and Far East	Exploration and production Exploration and production Natural gas liquids and sulfur extraction	Iran Iran Iran	100 50 50
Amoco Australia Exploration Company	Exploration and production	Australia	100
Amoco Australia Pty., Ltd. Amoco India, Inc. Madras Fertilizers, Ltd. Madras Refineries, Ltd. Amoco Japan Exploration Company Furukawa Chemical Industries Company, Ltd. A.G. International Chemical Company Amoco Thailand Petroleum Company Amoco Taiwan Petroleum Company	Refining and marketing Refining and manufacture of fertilizers Manufacture of fertilizers and chemicals Refining Exploration and production Manufacture and sale of chemical products Manufacture and sale of chemical products Exploration and production Exploration and production	Australia India India India India Japan Japan Japan Thailand Taiwan	100 100 49 13 100 25 50 100 100
Control of the late of the lat		The state of the S	No. of Contract of

# STANDARD OIL COMPANY

< INDIANA >

Post Office Box 5910-A Chicago, Illinois 60680

#### **New Credit Service**



The American Torch Club was founded in 1968, to provide extended credit service for our customers and another source of income for the Company.

Club members receive a credit card that covers all credit privileges of the regular Standard Oil or American Oil credit card and, in addition, the world-wide credit facilities of the Diners Club. A specimen card is shown above. Members of the Torch Club pay a modest annual fee, and may obtain individual cards for family members at additional cost.

Millions of our credit card holders have been invited to join the new American Torch Club.

The American Torch Club has been welcomed by our customers, and its operation is expected to contribute to the Company's earnings.